

CLAIM AMENDMENTS

1-28. (canceled)

1 29. (currently amended) A storage medium for the
2 storage of data, the storage medium comprising
3 a glass storage disk having opposite faces;
4 a layer of donor medium ~~a reflective coating~~ on one of
5 the faces of the glass storage disk;
6 a reflective coating on the layer of donor medium;
7 a polymer disk on the reflective coating; and
8 metallic ions in the layer of donor medium ~~the glass~~
9 ~~storage disk or on the other face thereof, the metallic ions being~~
10 and so constituted that when irradiated with a focused laser beam
11 these metallic ions are reduced to metallic particles in the glass
12 storage disk.

30-31. (canceled)

1 32. (currently amended) The storage medium for the
2 storage of data defined in claim 29, further comprising:
3 a layer of donor medium holding the metallic ions on the
4 ~~[[other]]~~ one face of the glass storage disk.

1 33. (currently amended) The storage medium for the
2 storage of data defined in claim 29, wherein the metallic ions are
3 ~~[[of]]~~ silver, gold, platinum, or copper.

1 34. (previously presented) The storage medium for the
2 storage of data defined in claim 29, wherein the polymer disk is
3 provided with an optically functional structure for guiding a
4 read/write beam.

1 35. (currently amended) The storage medium for the
2 storage of data defined in claim 34, wherein the optically
3 functional structure of the polymer disk is arranged on a face of
4 the polymer disk ~~turned toward~~ facing the glass storage disk.

1 36. (currently amended) A method of storing and
2 manipulating data on a storage medium, the method comprising the
3 steps of:

4 providing a storage medium having

5 a glass storage disk having opposite faces,

6 a layer of donor medium ~~a reflective coating~~ on one
7 of the faces,

8 a reflective layer on the layer of donor medium,

9 a polymer disk on the reflective coating,

10 metallic ions in ~~[[or on]]~~ the layer of donor medium

11 ~~glass storage disk~~; and

12 writing to the glass storage disk by irradiating the
13 glass storage disk ~~[[by]]~~ with focused electromagnetic or particle
14 irradiation and thereby reducing the metallic ions to metallic
15 particles and transferring the ions into the glass storage disk and
16 defining such that the ions define the data being stored.

37. (canceled)

1 38. (currently amended) The method defined in claim
2 ~~[[37]]~~ 36 wherein the ~~doped layer is formed as~~ disk is irradiated
3 along a helical track.

39-40. (canceled)

1 41. (currently amended) The method defined in claim
2 ~~[[40]]~~ 36, further comprising the step of:
3 reducing the metallic ions of the donor medium to
4 metallic clusters of particles ~~in the locally doped areas~~ by
5 heating the glass storage disk with a second focused laser beam
6 above the transformation temperature of the glass of ~~[[which]]~~ the
7 glass storage disk ~~is comprised~~.

42-43. (canceled)

1 44. (currently amended) The method defined in claim
2 [[43]] 36, wherein the glass storage disk is irradiated through the
3 other of its faces.

1 45. (previously presented) The method defined in claim
2 36, further comprising the step of reading the medium by
3 irradiating the glass storage disk by electromagnetic or
4 particle irradiation through the glass storage disk and thereby
5 reading the data stored in the metallic particles.

1 46. (previously presented) The method defined in claim
2 45, wherein the reading and writing of the medium are done by a
3 laser beam in a visible spectral region.

 47. (canceled)

1 48. (currently amended) The method defined in claim
2 [[47]] 36, wherein the reduction of metallic ions is effected by
3 heating the entire storage medium above a transformation
4 temperature of the glass storage disk.

1 49. (previously presented) The method defined in claim
2 36, further comprising the step of
3 deleting stored data by heating the storage medium.

1 50. (previously presented) The method defined in claim
2 36, wherein analog data is stored by varying an intensity of the
3 focused electromagnetic or particle irradiation.

1 51. (currently amended) The method defined in claim 36,
2 further comprising the step of:
3 retrieving data from the storage medium by detecting a
4 phase displacement of a reading laser beam caused by an altered
5 index of refraction in a ~~locally~~ doped area of the glass storage
6 disk.

52-56. (canceled)